

CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)

OFFICE OF STRUCTURAL MATERIALS (OSM)

QUALITY ASSURANCE AND SOURCE INSPECTION (QASI)

**WRITTEN PRACTICE FOR THE QUALIFICATION & CERTIFICATION OF
NONDESTRUCTIVE TESTING PERSONNEL ASSIGNED TO QUALITY ASSURANCE
AND SOURCE INSPECTION**

NONDESTRUCTIVE TESTING PROCEDURE WP-003

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Approved by:

Daniel Speer, Chief
Office of Structural Materials

<Original signed by Daniel Speer>

California Department of Transportation

CALTRANS
NDT PROCEDURE WP-003
WRITTEN PRACTICE FOR THE QUALIFICATION AND CERTIFICATION
OF NONDESTRUCTIVE TESTING PERSONNEL ASSIGNED TO QUALITY
ASSURANCE AND SOURCE INSPECTION

1.0 SCOPE

- 1.1 This procedure (Written Practice) establishes requirements for the qualification and certification of CALTRANS personnel assigned to Quality Assurance and Source Inspection (QASI), whose specific jobs require appropriate knowledge of the technical principles underlying the nondestructive tests they perform, witness, monitor, or evaluate. This procedure meets the guidelines established by The American Society for Nondestructive Testing (ASNT), Recommended Practice Number SNT-TC-1A, 2001 edition, which meets the guidelines of the 1996 edition of SNT-TC-1A.
- 1.2 Qualification and certification of nondestructive testing (NDT) personnel in accordance with this procedure is applicable to each of the following NDT methods:
- (a) Liquid Penetrant Testing (PT)
 - (b) Magnetic Particle Testing (MT)
 - (c) Radiographic Testing (RT)
 - (d) Ultrasonic Testing (UT)
- 1.3 Personnel certified in accordance with this procedure are considered to meet the qualification and certification recommendations of the previous editions of SNT-TC-1A. Qualifications of individuals certified by CALTRANS in accordance with a previous edition of this procedure are valid until the expiration of their current certification.

2.0 DEFINITIONS

- 2.1 The terms included in this procedure are defined as follows:

ASNT Certificate Holder: An Individual possessing a current valid ASNT (American Society for Nondestructive Testing) certification in one or more nondestructive test methods.

CALTRANS Level III: An ASNT Level III Certificate Holder in radiographic and ultrasonic nondestructive testing directly employed by CALTRANS and certified as a Level III in accordance with this procedure. This individual may provide assistance to the Certifying Authority in the administration of this certification procedure, evaluation of NDT personnel competency, preparation, and grading of certification examinations and the development of standard operating procedures. The Certifying Authority may delegate to the CALTRANS Level III various activities associated with the certification of personnel with the exception of the authority to certify personnel to any level of competency. When the term "Level III" is used in this procedure, the term "CALTRANS Level III" is synonymous.

Certification: Written testimony of qualification to a specific level of competency, issued by CALTRANS.

Certifying Agency: CALTRANS

Certifying Authority: The person or persons properly designated by the Chief of the Office of Structural Materials to sign certification documents and to act in the capacity described in this procedure. This designation shall be in writing and shall be kept on file. When the Certifying Authority is not certified as a NDT Level III in the applicable method, the Certifying Authority shall seek input from an approved certified Level III, when evaluating and approving items requiring specific NDT technical knowledge, as indicated in this procedure.

Closed Book Examination: An examination administered without access to reference material except for materials supplied with or in the examination.

Comparable: Being at an equivalent or similar level of NDT responsibility and difficulty as determined by the Certifying Authority with input from the Level III.

Documented: The condition of being in written form or in CALTRANS personnel work history file.

Employer: California Department of Transportation (CALTRANS), Office of Structural Materials (OSM). All references to CALTRANS in this procedure shall be considered references to OSM.

Experience: Work activities accomplished in a specific NDT method under the guidance of a qualified Level II or Level III, including the performance of the NDT method and related activities, but not including time spent in the initial organized training programs to meet the minimum requirement of Table I. Upon completion of the experience required for each Level of qualification, the individual must be fully capable of operating independently at the desired level of qualification. If the individual is determined by the Level III or Certifying Authority to be incapable of operating at this desired level, the individual shall receive additional experience, as determined by the Certifying Authority. Refresher training and specific job function training may be credited as experience when the individual has documented evidence of meeting the minimum required initial organized training indicated in Table I.

Initial Organized Training: An organized program developed to impart the knowledge and skills necessary for qualification to a specific level of competency as specified in Table I.

Level III Examiner: A certified NDT Level III individual having responsibility for preparing, administering and grading the examinations for certification. The Level III Examiner shall be certified for the specific test method and approved by CALTRANS Certifying Authority.

Nondestructive Testing: A process that involves the inspection, testing, or evaluation of materials, components and assemblies for materials' discontinuities, properties and welding problems without further impairing or destroying the parts serviceability.

Outside Agency: A company or individual who provides NDT Level III services and whose qualifications to provide these services have been reviewed and approved by CALTRANS Certifying Authority.

Outside Level III: An individual indirectly employed by CALTRANS to assist the Certifying Authority in the administration of this certification procedure, evaluation of NDT personnel competency, preparation and grading of certification examinations and the development of standard operating procedures. The Certifying Authority may delegate to the Outside Level III various activities associated with the certification of personnel with the exception of the authority to certify personnel to any level of competency. When the term "Level III" is used in this procedure, the term "Outside Level III" is synonymous.

Qualification: Demonstrated skill and knowledge, along with documented training and experience required for personnel to properly perform the duties of a specific level of competency.

Qualified Individual: A CALTRANS employee meeting the qualification requirements of this procedure for a specific level of competency.

Refresher Training: An organized program developed to reinforce the knowledge and skills necessary for continued satisfactory performance to a specific level of competency. This training shall be conducted by a Level III qualified in the specific method. Refresher training may be credited as experience to achieve the next level of competency, when the following conditions are met:

- (a) Individuals have previously met the minimum training requirements for the specific level of competency as specified in Table I.
- (b) Individuals have passed the examinations for the specific level of competency as specified in Section 8.0 and received certification in that method.
- (c) Training program focuses on the specific duties the individual is required to perform on a routine basis. This focus must include the specific requirements of AWS Codes, CALTRANS Standard Specifications, Contract Special Provisions, and CALTRANS Procedures for conducting or witnessing NDT.

Recommended Practice: A set of guidelines to assist CALTRANS in developing uniform procedures for the qualification and certification of NDT personnel to satisfy CALTRANS specific requirements.

Subcontractor: Any organization under contract to CALTRANS to provide nondestructive testing or consulting services related to nondestructive testing. The Certifying Authority shall approve the written practice of the Subcontracting organization. The written practice of the subcontracting organization is not bound by the requirements of CALTRANS Written Practice, provided it is consistent with the guidelines of ASNT SNT-TC-1A, 1996 Edition.

Training: An organized program developed to impart the knowledge and skills necessary for qualification.

3.0 REFERENCE DOCUMENTS

3.1 Unless otherwise specified, the following documents of the issue listed form a part of this procedure.

- (a) SNT-TC-1A, December 2001 Edition
- (b) AWS D1.1, Latest Edition
- (c) AWS D1.4, Latest Edition
- (d) AWS D1.5, Latest Edition
- (e) AWS D1.6, Latest Edition
- (f) CALTRANS Standard Specifications, 1999 Edition
- (g) CALTRANS Contract Special Provisions
- (h) ASME Section V
- (i) Applicable ASTM Standards

3.2 In case of a conflict between this procedure and the documents referenced, this procedure shall take precedence.

4.0 GENERAL REQUIREMENTS

4.1 This procedure has been prepared to establish guidelines for the qualification and certification of OSM NDT personnel whose specific jobs require appropriate knowledge of the technical principles underlying the nondestructive tests they perform, witness, monitor, or evaluate. This procedure shall be used as a written practice for the control and administration of OSM NDT personnel, training, qualification, examination, and certification.

4.2 All OSM personnel performing, witnessing, monitoring, or assuring procedure compliance of any nondestructive testing shall be trained, qualified, examined, and certified in accordance with this procedure.

4.2.1 The training outlines, examination results, and records of qualification and certification of CALTRANS personnel shall be kept complete and available for audit.

4.2.2 All initial certifications shall be by means of examinations as described in paragraph 8.0.

- 4.3 The Level III personnel responsible for administering the qualification and certification program, conducting the training, preparing and administering examinations for qualification in accordance with this procedure, must be knowledgeable of the procedures, codes and specifications utilized by QASI. In addition, the Level III must possess a current ASNT Level III certification in that discipline.

5.0 LEVELS OF QUALIFICATION

- 5.1 There shall be four basic levels of qualification in NDT methods.

- 5.1.1 Trainee: Prior to certification, while in the process of being trained and qualified, an individual shall be considered a Trainee. A trainee shall work with a certified individual and shall not independently conduct, interpret evaluate, or report the results of any NDT test.
- 5.1.2 NDT Level I: An NDT Level I individual shall be qualified to perform specific calibrations, specific NDT, and specific evaluations for acceptance or rejection determinations according to specific written instructions and to record the results. The assigned duties and responsibilities of the Level I shall be clearly defined by the Certifying Authority. The Level I shall receive the necessary specific instruction or guidance from a certified Level II or Level III. The Level I shall be capable of performing additional NDT task when a Level II or Level III is in the immediate vicinity and providing continuous guidance and direction. The intent is to provide the Level I the opportunity to acquire skills and knowledge through hands on testing experience in order to progress to the next level of certification.
- 5.1.2.1 An NDT Level I individual shall be qualified to witness or observe the contractor's QC personnel performing NDT examinations. They shall be able to identify and report areas of compliance and noncompliance, through these observations. The Level I shall report the nonconformance observations to a certified Level II or Level III for evaluation or action. The Level I shall be qualified to witness Q/C personnel performing various types of NDT test in the method certified, in accordance with a specific written procedure or instruction for compliance with a code, standard, or specification. The witness shall be able to confirm that the Q/C personnel comply with their written procedure and contract documents.
- 5.1.2.2 An NDT Level I individual shall be qualified to perform specific calibrations, specific examinations, and specific evaluations for acceptance or rejection determinations according to specific written instructions and to record the results for evaluation by a Level II.

5.1.3 NDT Level II - An NDT Level II individual shall be qualified to set up and calibrate equipment for testing to perform examinations, and to interpret and evaluate the results with respect to applicable codes, standards and specifications. The NDT Level II shall be familiar with the scope and limitations of the methods for which they are qualified and shall exercise assigned responsibility for on-the-job training and guidance of trainees, Level I and Level II Limited Technicians. The NDT Level II shall be able to organize and report the results of nondestructive tests.

5.1.3.1 NDT Level II Limited - Individuals may be certified to Level II status with specific limitations on their duties if they have not achieved the required experience specified in Table I for Level II, when the following conditions are satisfied:

- (a) Specific limitations are clearly defined and established on the individual's working capacity as a Level II NDT technician.
- (b) The individual has acquired the required formal classroom training for qualification as Level II, in accordance with Section 7 and Table I.
- (c) The individual has successfully passed the examinations specified in Section 8. The Level III may modify the difficulty level and scope of the examinations for certification to Level II Limited status.
- (d) The Level II Limited technician must receive sufficient direction and guidance from certified Level II and Level III personnel. The level of direction and guidance required for Level II Limited personnel will be determined by the Certifying Authority.
- (e) The individual has acquired the minimum experience specified in Table I, under the heading of "Level II Limited".

5.1.3.2 NDT Level II Limited individual's certification shall have their limitations determined by the Certifying Authority, with input from the Level III. These limitations shall be established on a case by case basis. The duties of the Level II Limited individual may include the following, in addition to other specific categories of limitations as established by the Certifying Authority:

PT Performing dye penetrant testing using a specific group of liquid dye penetrant consumable in accordance with a specific written procedure. The individual must prove their level of competency to be equivalent to that of a Level II, using that specific group of PT consumable. This testing may be conducted for informational purposes or for compliance with a specific code, standard, or specification. The individual shall be qualified to review Q/C's written

procedures, and test reports for compliance with contract documents.

MT Performing dry powder testing using a portable AC or DC yoke in accordance with a specific written procedure, for compliance with a specific code, standard, or specification. The individuals shall be qualified to review Q/C's written procedure and test reports for compliance with contract documents.

RT Performing radiographic film review to evaluate only radiographic film quality for welded structural steel and piling components, when the evaluation is performed to specific code criteria and contract document. The results of this evaluation must be reviewed by a certified Level II or Level III. Individuals certified to RT Level II Limited status are not permitted to evaluate the quality of welds, castings and other components for compliance with codes, standards, and specifications. The individual shall be qualified to verify that the extent of radiographic testing performed by Q/C meets the requirements of the contract documents. The individual shall be qualified to review Q/C's written procedure and test report for compliance with contract documents.

UT Performing ultrasonic tests in accordance with a specific written procedure. The results of the ultrasonic test shall be reviewed and approved by a certified Level II or Level III. The Level II Limited individual shall be qualified to review test reports submitted by Q/C to confirm that the presented information appears accurate, complete and in general compliance with code criteria and the contract documents. The individual shall be qualified to review Q/C's written procedures to confirm compliance with contract documents.

5.1.4 NDT Level III - An NDT Level III individual shall be capable of establishing techniques and procedures; interpreting codes, standards, specifications, and procedures; and designating the particular NDT methods, techniques, and procedures to be used. The Level III shall possess and maintain a current ASNT Level III certificate in each of the NDT methods for which they are responsible. The NDT Level III shall be responsible for the NDT operations for which they are qualified and assigned within CALTRANS and shall be capable of interpreting and evaluating results in terms of existing codes, standards and specifications. The NDT Level III shall have sufficient practical background in applicable materials, fabrication, and/or product technology to establish techniques and to assist in establishing acceptance criteria where none is otherwise available. The NDT Level III shall have general familiarity with other appropriate NDT methods, as demonstrated by the successful

completion of the ASNT Level III Basic Examination. The NDT Level III, in the methods in which certified should be capable of training and examining NDT Level II personnel for certification in those methods.

6.0 EDUCATION, TRAINING, AND EXPERIENCE

- 6.1 Personnel considered for certification shall have sufficient education, training, and experience to ensure an understanding of the principles and procedures of those methods in which they are being considered for certification. Documented training and/or experience gained in positions and activities comparable to those of Level I, Level II, and/or III prior to establishment of the CALTRANS written practice may be considered satisfying the criteria when approved by the Certifying Authority.
- 6.2 Table I states the minimum required training and experience for initial qualification to NDT Level I, Level II Limited, and Level II.
- 6.3 To be considered a candidate for certification as a NDT Level III the individual must possess and maintain a current ASNT Level III certificate and one of the following criteria shall be satisfied for each NDT method for which certification is sought:
- (a) Graduate of a four-year college or university with a degree in Engineering or Science plus one additional year of experience beyond the Level II requirements in an assignment comparable to that of an NDT Level II in that applicable test method.
 - (b) Completion with a passing grade of at least two years of engineering or science at a university, college, or technical school, plus two additional years of experience beyond the Level II requirements in an assignment at least comparable to that of an NDT Level II, in the applicable test method.
 - (c) Four years experience beyond the Level II requirements in an assignment at least comparable to that of an NDT Level II, in the applicable test method.
- 6.4 Training shall be conducted as outlined in the appendix to SNT-TC-1A, 2001 Edition, "Recommended Training Courses" (as applicable), except that subjects which do not apply to NDT applications in use by CALTRANS may be deleted from the training, when approved by the NDT Level III and Certifying Authority. The prescribed training hours may not be reduced below those shown in the attached Table 1 for the applicable method as a result of such deletions. The training program should include sufficient examinations to ensure understanding of the necessary information. Training administered by technical institutions, industrial organizations, colleges, universities, and service organizations shall be considered equivalent to the training outlined in the appendix subject to the approval of the NDT Level III and Certifying Authority.

- 6.5 Documentation of prior certification may be accepted as evidence of meeting the education, training, and experience requirements for comparable levels of certification, when approved by the Certifying Authority.

7.0 TRAINING PROGRAMS

- 7.1 Personnel considered for certification to a specific level of competency shall complete CALTRANS approved training courses to become thoroughly familiar with the principles and practices of the applicable NDT method as they relate to CALTRANS specific applications. Other approved training, which meets the requirements of sections 7.2 and 7.3, can be accepted by the CALTRANS Level III or the designated CALTRANS Certifying Authority. The Level III may provide additional individual training for personnel receiving other training to ensure that CALTRANS specific requirements are understood.
- 7.2 A training manual will be used in all initial organized training programs, which incorporates training course texts, notes, and practical exercises. The training material shall include as a minimum those areas detailed in SNT-TC-1A, 2001 Edition, that are applicable to CALTRANS. Additional materials shall be incorporated which address conformance to specifications and other important responsibilities of CALTRANS NDT personnel. Also material shall cover the conformance to NDT techniques and specifications performed by contractors
- 7.3 All NDT training programs shall be conducted by an individual who is a certified NDT Level III in the method to be taught and shall include basic principles and theory of the specific NDT method. The program shall also include practical training to help the individual develop the practical skills necessary to carry out the responsibilities of the applicable level of certification. The training program shall include sufficient examinations to assure that the necessary information has been comprehended.
- 7.4 A minimum General Examination grade of 70 will be considered as evidence that the individual has comprehended the necessary information and will serve as a course completion grade.

8.0 EXAMINATIONS

- 8.1 To be considered eligible for certification, the candidate must meet the qualification requirements stipulated in this procedure.
- 8.2 An NDT Level III Examiner, Outside Level III, or CALTRANS Level III shall be responsible for preparing, administering, and grading the examinations for certification. The designated Level III may delegate the administration of examinations to a designated representative; however, the Level III shall complete the final grading of examinations. If the administration of examinations is delegated by the NDT Level III, it shall be recorded.

8.3 NDT Level I, and Level II examinations shall consist of the following:

- 8.3.1 General Examination - A written examination consisting of questions relating to the basic principles and techniques of the applicable NDT method. A passing score on the Level III Method exam (Sec. 8.4.2) will satisfy this requirement for Level III personnel to be certified as a Level II for compliance with Code requirements. The sample questions for general examinations published in separate question booklets by ASNT may be used verbatim for qualification examinations. The minimum number of questions shall be:

<u>NDT Method</u>	<u>Level I</u>	<u>Level II</u>
Liquid Penetrant Testing (PT)	30	30
Magnetic Particle Testing (MT)	30	30
Radiographic Testing (RT)	40	40
Ultrasonic Testing (UT)	40	40

- 8.3.2 Specific Examination - A written examination consisting of questions relating to the equipment, specifications, and test procedures the individual will be using to carry out their work assignments in the applicable method. The minimum number of questions shall be:

<u>NDT Method</u>	<u>Level I</u>	<u>Level II</u>
Liquid Penetrant Testing (PT)	20	15
Magnetic Particle Testing (MT)	20	15
Radiographic Testing (RT)	20	20
Ultrasonic Testing (UT)	20	20

- 8.3.3 Level I and Level II Limited Practical Examination - The candidate for NDT Level I or Level II Limited certification shall demonstrate proficiency by performing the applicable nondestructive testing technique within the method, and evaluating the results to the degree of responsibility described in this procedure, on one or more samples, approved by the NDT Level III and Certifying Authority. At least ten different checkpoints requiring an understanding of the test variables and the applicable standards or procedures shall be used by the Level III in determining the candidate's proficiency.
- 8.3.4 Level II Practical Examination - The candidate for NDT Level II certification shall demonstrate proficiency in selecting and performing the applicable nondestructive testing technique within the method, interpreting, and evaluating the results on one or more samples, approved by the NDT Level III and Certifying Authority. At least ten different checkpoints requiring an understanding of the NDT variables and the applicable standards or procedures shall be used by the Level III in determining the candidate's proficiency.

8.4 NDT Level III examinations shall consist of the following:

- 8.4.1 Basic Examination - A written examination consisting of appropriate questions to verify that the candidate has knowledge of SNT-TC-1A, materials, fabrication and product technology, and other NDT methods. The test shall consist of at least sixty (60) questions with at least twenty (20) questions relating to understanding the SNT-TC-1A document, twenty (20) questions relative to applicable materials, fabrication, and product technology and twenty (20) questions that are similar to published Level II questions for other appropriate NDT methods. The successful completion of the ASNT Basic Level III Examination satisfies these criteria for certification.
- 8.4.2 Method Examination - A written examination covering the fundamentals and test principles of the applicable NDT method. The examination shall consist of a minimum of sixty-five (65) questions approved by an NDT Level III and appropriate for the Level III certification. The successful completion of the ASNT Level III Method Examination satisfies these criteria for certification. The examination shall consist of:
- (a) At least thirty (30) questions relating to the fundamentals and test principles that are similar to published ASNT Level III questions for the applicable NDT method. The sample questions for general examinations published in separate question booklets by ASNT may be used verbatim for qualification examinations.
 - (b) At least fifteen (15) questions relating to the establishment of techniques and procedures similar to the published ASNT Level III questions for the applicable NDT method.
 - (c) At least twenty (20) questions relating to the candidate's capability to interpret codes standards and specifications pertaining to the applicable NDT method.
- 8.4.3 Specific Examination - A written examination consisting of questions covering the equipment, procedures and test techniques that the candidate may encounter in specific assignments, and the pertinent specifications and codes used. The specific examination shall consist of at least twenty (20) questions in the applicable NDT method.
- 8.4.4 ASNT Certificate Holders - For NDT Level III certification, a current, valid NDT Level III certificate issued by ASNT may be substituted for the Basic and Method examinations when approved by the Level III and Certifying Authority. In addition, the Specific examination may be omitted in each method that the valid ASNT Certificate Holder has documented evidence of experience writing NDT procedures or specifications and evaluation of test results, as approved by the Level III and Certifying Authority.

- 8.5 All written examinations shall be taken without access to reference material (closed book), except that necessary data, such as graphs, tables, specifications, procedures, and codes may be provided by the Level III.
- 8.6 Vision Examinations - All NDT personnel shall be given vision examinations as a condition for initial certification as follows:
 - 8.6.1 Near distance, such that the individual is capable of reading with at least one eye the Jaeger 2 type, or equivalent at a distance of not less than 12 inches.
 - 8.6.2 A color contrast differentiation test that demonstrates the capability of distinguishing and differentiating contrast among colors used in the method.
 - 8.6.3 Near vision test shall be conducted annually and color contrast differentiation test shall be given at three-year intervals. These results shall be kept on file for the period of certification. In addition, all personnel certified as CWI by the American Welding Society (AWS), shall have a far vision test administered every three (3) years in accordance with the vision examination requirements for a CWI. This vision test shall be administered by a medical person qualified to give eye examinations.
 - 8.6.4 The near vision and color contrast tests shall be administered by an individual designated by the Level III or Certifying Authority.

9.0 GRADING OF EXAMINATIONS:

- 9.1 The NDT Level III shall be responsible for administering and grading of examinations. The grading of examinations may be delegated to a designated representative of the NDT Level III and so recorded; however, the NDT Level III shall perform the final grading and sign off all examination grades.
- 9.2 NDT Levels I and II grading - A composite grade shall be determined by a simple averaging of the general, specific, and practical examinations.
 - 9.2.1 A passing composite grade of at least 80% is required for certification with no individual examination having a grade less than 70%.
- 9.3 NDT Level III - A composite grade shall be determined by a simple averaging of the basic, method, and specific examinations.
 - 9.3.1 ASNT Certificate Holders - When an ASNT NDT Level III certificate is substituted for the Basic, Method, or Specific examinations (see paragraph 8.4.4), a grade of 80% shall be used for the replaced or omitted examinations.
 - 9.3.2 A passing composite grade of at least 80% is required for certification with no individual examination having a grade less than 70%.

9.4 Re-examination of those individuals failing to attain the required grades must wait at least 30 days or show evidence of having received suitable additional training as determined by the Certifying Authority before re-examination.

10.0 CERTIFICATION

10.1 The certification of all levels of NDT personnel is the responsibility of CALTRANS.

10.2 An Outside Agency may be used to provide NDT Level III services. CALTRANS shall be responsible for the certification of their personnel.

10.3 The personnel records of the certified individual shall be maintained on file by CALTRANS. It is the responsibility of the certified individual to update these records. These records shall include the following:

10.3.1 Name of certified individual.

10.3.2 Level of certification and limitations of Level II Limited individuals for each test method certified.

10.3.3 Educational background and experience of certified individuals.

10.3.4 Statement indicating satisfactory completion of training.

10.3.5 Results of vision examinations.

10.3.6 Current examination copy(ies) or evidence of successful completion of examinations.

10.4.7 Other suitable evidence of satisfactory qualifications when such qualifications are used in lieu of the specified examinations prescribed in Section 8.

10.4.8 Composite grade(s) or suitable evidence of grades.

10.4.9 Signature of the Level III that verified qualifications of candidate for certifications.

10.4.10 Date of certification and/or recertification and date of assignment to NDT.

10.4.11 Certification expiration date.

10.4.12 Signature of Certifying Authority.

11.0 RE-CERTIFICATION

11.1 NDT Level I, Level II Limited, and Level II personnel shall be re-certified at a maximum interval of three years.

11.1.1 Level I and Level II Limited personnel shall be re-certified by evidence of continuing satisfactory performance acceptable to the Certifying Authority.

11.1.2 Level II personnel shall be re-certified by the successful completion of a practical examination or other examinations as described in Section 8 of this document and approved by the Certifying Authority.

11.2 All NDT Level III personnel shall be re-certified at a maximum interval of five years. This re-certification shall be by evidence of maintaining a current valid ASNT Level III certificate in the test method and continuing satisfactory performance acceptable to the Certifying Authority.

11.3 All NDT personnel may be re-examined at any time at the discretion of the Certifying Authority and have their certifications extended or revoked.

11.4 An individual shall be re-examined and re-certified when service in a particular NDT discipline is interrupted for a period of 18 months or more. Interrupted service shall be defined as being completely removed from the applicable NDT discipline. Review of NDT procedures, NDT test reports, and witnessing Q/C performing test shall qualify as continued service for Level I, Level II, and Level III individuals.

11.5 Level II individuals shall maintain proficiency in the discipline for which they are certified as defined below:

- (a) Individuals that are certified to perform UT shall be reexamined by practical examination and re-certified when they have not actually performed the test for a period of 6 months or more.
- (b) Individuals that are certified to perform radiographic film interpretation shall be reexamined by practical examination and re-certified when they have not actually performed film interpretation for a period of 12 months or more.
- (c) Individuals that are certified to perform MT shall be reexamined by practical examination and re-certified when they have not actually performed the test for a period of 18 months or more.
- (d) Individuals that are certified to perform PT shall be reexamined by practical examination and re-certified when they have not actually performed the test for a period of 24 months or more.

12.0 TERMINATION

12.1 All certifications shall be automatically terminated when an individual leaves the employment of CALTRANS.

13.0 REINSTATEMENT

13.1 An individual previously certified by CALTRANS as an NDT Level I, Level II Limited, Level II, or Level III may have their certifications reinstated after the expiration date by the certifying authority when the following conditions are met:

- (a) The individual successfully completes a proficiency examination in the test method, as prescribed by the Certifying Authority. This proficiency examination may be similar to the examinations utilized for the initial certifications as described in Section 8 of this procedure. The results of the proficiency examination shall be no less than 75%, regardless of the type of examination specified by the Certifying Authority.
- (b) The individual's certifications are reinstated within one hundred fifty days of the expiration or termination date.
- (c) The individual was working to the capacity of the level certified within the past six months of the expiration or termination date.
- (d) The future expiration date resulting from the reinstatement shall not exceed the certification time duration stipulated in Paragraph 11 of this procedure. This future expiration date shall coincide with the theoretical expiration scheduled had the individual re-certified on the date of certification expiration. This stipulation ensures that the individual does not gain additional time between certification intervals that exceeds the criteria of this procedure.

TABLE 1 – TRAINING AND EXPERIENCE

NDT LEVEL I			
METHOD	INITIAL TRAINING (Hours)		EXPERIENCE HOURS (as Trainee)
	Education Option 1	Education Option 2	
MT	12	8	70
PT	4	4	70
RT	40	30	210
UT	40	30	210

NDT LEVEL II – LIMITED			
METHOD	ADDITIONAL TRAINING (Hours)		EXPERIENCE HOURS (as Level I)
	Education Option 1	Education Option 2	
MT	8	4	105
PT	8	4	105
RT	40	35	315
UT	40	40	315

NDT LEVEL II			
METHOD	ADDITIONAL TRAINING (Hours)		EXPERIENCE HOURS (as Level I & Level II Limited)
	Education Option 1	Education Option 2	
MT	8	4	210
PT	8	4	140
RT	40	35	630
UT	40	40	630

Notes:

- For Level II certification, the experience shall consist of time at Level I and Level II Limited or equivalent. If a person is being qualified directly to Level II, with no time at Level I or Level II Limited, the required experience shall consist of the sum of the times required for Level I, and Level II. In addition, the required training shall consist of the sum of the hours required for both Level I and Level II.
- The experience hours required for qualification as Level II are reduced if the individual is being qualified as Level II Limited, when approved by the Certifying Authority.
- The experience hours required to be certified from Level II Limited to Level II is the difference between the hours listed in the two table categories.
- Initial experience may be gained simultaneously in two or more methods if:
 - the candidate spends a minimum of 25% of work time on each method for which certification is sought, and
 - The remainder of the work time claimed as experience is spent in hands-on NDT related activities.
 - The actual experience hours received shall be recorded for each discipline and the Certifying Authority shall utilize this information in determining the application of the 25% experience rule defined above.